

Solving Sum/Difference of Cubes

Date: _____ Hour: _____

Factor each completely and solve.

1) $125 + 216x^3 = 0$

2) $1 + 27m^3 = 0$

3) $x^3 - 64 = 0$

4) $a^3 + 125 = 0$

5) $125 + 8a^3 = 0$

6) $27x^3 - 1 = 0$

7) $27a^3 + 64 = 0$

8) $27x^3 - 64 = 0$

Answers to Solving Sum/Difference of Cubes

- 1) $(5 + 6x)(25 - 30x + 36x^2)$ 2) $(1 + 3m)(1 - 3m + 9m^2)$ 3) $(x - 4)(x^2 + 4x + 16)$
4) $(a + 5)(a^2 - 5a + 25)$ 5) $(5 + 2a)(25 - 10a + 4a^2)$ 6) $(3x - 1)(9x^2 + 3x + 1)$
7) $(3a + 4)(9a^2 - 12a + 16)$ 8) $(3x - 4)(9x^2 + 12x + 16)$